JOURNAL OF
PHYSICS
AND
CHEMISTRY OF SOLIDS

List of Contents and Author Index
Volume 54, 1993

PERGAMON

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS

(FOUNDER EDITOR: HARVEY BROOKS)

Senior Advisory Editors

ARTHUR C. DAMASK, GEORGE J. DIENES, JACQUES FRIEDEL,
JOHANN PEISL, SIR JOHN THOMAS, YASUSADA YAMADA and GUAN WEIYAN

Editors

DAVID E. COX, *Brookhaven National Laboratory, Upton, NY* 11973, *U.S.A.*

YASUHIKO FUJII, *Institute for Solid State Physics, The University of Tokyo*, 7-22-1 *Roppongi, Minato-ku, Tokyo* 106, *Japan*

GEORGE A. SAWATZKY, *Laboratory of Applied and Solid State Physics, Materials Science Centre, University of Groningen, Nijenborgh* 4, 9747 *AG Groningen, The Netherlands*

ROBERT N. SHELTON, *Department of Physics, University of California, Davis, CA* 95616, *U.S.A.*

Editorial Advisory Board

F. BASSANI, Pisa, Italy
G. BLASSE, Utrecht, The Netherlands
A. S. BOROVIK-ROMANOV, Moscow, Russia
R. C. BOWMAN, JR, Azusa, CA, U.S.A.
E. BURSTEIN, Philadelphia, PA, U.S.A.
C. R. A. CATLOW, London, U.K.
A. K. CHEETHAM, Santa Barbara, CA, U.S.A.
J. R. CHELIKOWSKY, Minneapolis, MN, U.S.A.
M. DATE, Osaka, Japan
F. J. DI SALVO, Ithaca, NY, U.S.A.
R. C. DYNES, La Jolla, CA, U.S.A.
J. FINK, Dresden, Germany
QINGQUAN GOU, Chengdu, Sichuan, China
C. HAAS, Groningen, The Netherlands
P. HAGENMULLER, Bordeaux, France
E. E. HALLER, Berkeley, CA, U.S.A.
F. J. HIMPSEL, Yorktown Heights, NY, U.S.A.
C. J. HUMPHREYS, Cambridge, U.K.
T. ISHIGURO, Kyoto, Japan
P. W. M. JACOBS, Ontario, Canada
J. A. KRUMHANSL, Ithaca, NY, U.S.A.
K. KAWASAKI, Fukuoka, Japan
S. C. MOSS, Houston, TX, U.S.A.
B. C. SALES, Oak Ridge, TN, U.S.A.
H. SUEMATSU, Tokyo, Japan
T. TIMUSK, Ontario, Canada

Production Editor

S. RAYWOOD, *Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.* (0865-743517)

Publishing, Subscription and Advertising Offices: Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.; and Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.

Annual Institutional Subscription Rates 1994: North, Central and South America, US$1670.00, Rest of World £1086.00. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice.

Back issues of all previously published volumes, in both hard copy and on microform, are available direct from Elsevier Science offices.

Copyright © 1994 Elsevier Science Ltd

Second class postage paid at Rahway, NJ. Postmaster send address corrections to Journal of Physics and Chemistry of Solids, c/o Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.

Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appear in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement.

Scanning Electron Micrographs on cover courtesy of John Simpson, II-VI MBE Group, Heriot-Watt University, Edinburgh, U.K.

LIST OF CONTENTS

Number 1

Lianwei Rei, Jin-Seung Jung, J. Ferre and **C. J. O'Connor**	1	Photomagnetic effect in manganese doped aluminosilicate glass
A. J. Campbell and **D. L. Heinz**	5	Equation of state and high pressure phase transition of NiS in the NiAs structure
R. Stoyanova, E. Zhecheva and **C. Friebel**	9	Magnetic interactions in layered $LiNiO_2$ revealed by EPR of Ni^{3+}
K. Endo, K. Yamamoto and **K. Deguchi**	15	Structure analysis of metal(I) halide mixed crystals by MAS-NMR and X-ray diffraction methods—II. $CuBr_xI_{1-x}$ crystal
Y. J. Shin, J. P. Doumerc, P. Dordor, M. Pouchard and **P. Hagenmuller**	25	Preparation and electrical properties of the mixed valency solid solutions $Cr_{1-x}Nb_xWO_4$
F. Morin and **R. Dieckmann**	31	On the use of chemical re-equilibration to determine true diffusivity in CoO
M. Bucher	35	Structure of the silver rich phase of AgBr–CuBr mixed crystals
A. Halperin and **E. W. Sucov**	43	Temperature dependence of the X-ray induced luminescence of Al–Na-containing quartz crystals
J. L. Corkill and **M. L. Cohen**	51	Empirical versus *ab initio* atomic radii for melting theory of disordered alloys
Jiang-Tsu Yu, Ssu-Hao Lou, Yng-Huey Jeng and **Ching-Jiun Wu**	57	EPR of $[N(CH_3)_3]^+$ and $[SnX_6]^{3-}$ (X = Cl, Br) in irradiated $[NH(CH_3)_3]_2SnX_6$ crystals
A. Q. Pham, C. Michel, M. Hervieu, A. Maignan and **B. Raveau**	65	Substitution of lead for bismuth in the 2201-type oxide $Bi_2BaLaCuO_{6+\delta}$
Wei Wang, Laiming Li and **Shiquan Xi**	73	An infrared spectroscopic characterization of the solid–solid behavior of dodecylammonium chloride
G. S. Chaddha and **S. Kumar**	79	Curie temperature of anisotropic Heisenberg mixed spin system
S. M. Teleb, S. A. Sadeek and **E.-M. Nour**	85	Preparation and infrared spectrum of the bridged diacetato complex $[Cu_2(O)(H_2O)_2(OOCCH_3)_2]$ formed by the reaction of urea with copper (II) acetate
A. G. Rinzler, J. F. Dolan, L. A. Kappers, D. S. Hamilton and **R. H. Bartram**	89	Pressure dependence and thermal quenching of chromium photoluminescence in $Cs_2NaYCl_6:Cr^{3+}$
A. S. Moskvin, A. V. Zenkov, E. A. Ganshina, G. S. Krinchik and **M. M. Nishanova**	101	Anisotropy of the circular magneto-optics of orthoferrites: a theoretical consideration on the basis of the charge-transfer transitions and exchange–relativistic interactions concept
P. Ghigna, U. Anselmi-Tamburini, G. Spinolo and **G. Flor**	107	Kinetics and mechanisms of formation of the $Bi_2Sr_2CuO_x$ superconductor
I. Akhmadullin, V. Golenischev-Kutuzov, S. Migachev and **M. Korzhik**	117	Investigation of the substitutional Fe^{2+} center in $Y_3Al_5O_{12}$ by acoustic EPR
J. Tritt-Goc and **N. Pislewski**	123	Proton NMR relaxation study of the motion of water molecules in hydrated nitroprussides

J. Luengo and N. V. Joshi 127 Optical properties of the defect compound $CdGa_2\square S_4$

K. Umeo, Y. Aya, M. Itakura, N. Kuwano and K. Oki 131 External pressure enhancement of the dense Kondo effect in a PdCe intermetallic compound

Number 2

H. Raffius, E. Mörsen, B. D. Mosel, W. Müller-Warmuth, W. Jeitschko, L. Terbüchte and T. Vomhof 135 Magnetic properties of ternary lanthanoid transition metal arsenides studied by Mössbauer and susceptibility measurements

M. Huvé, C. Martin, C. Michel, A. Maignan, M. Hervieu and B. Raveau 145 Influence of the size of alkaline earth cations on the structural distortion and transport properties of the semiconducting 1212-type cuprates $T1Ba_{2-x}Sr_xLnCu_2O_7$

W. Ryba-Romanowski, S. Gołąb and G. Dominiak-Dzik 153 Influence of temperature on infrared to visible conversion in tellurite glass doped with erbium and ytterbium

P. F. Schofield and S. A. T. Redfern 161 Temperature- and composition-dependence of the ferroelastic phase transition in $(Cu_xZn_{1-x})WO_4$

M. Barrio, J. Font, D. O. López, J. Muntasell, J. Ll. Tamarit, P. Negrier, N. B. Chanh and Y. Haget 171 Miscibility and molecular interactions in plastic phases: binary system pentaglycerin/tris(hydroxymethyl)aminomethane

C. K. Ong 183 Surface diffusion of a Si adatom on a Si(100) surface

N. Fanjat and G. Lucazeau 187 Magnetic properties of $Fe_2Na_3(PO_4)_3$—I. Calculation of magnon dispersion curves in a complex structure

Byoung-Koo Choi, Young-Hee Cho and Hyo-Kyoung Lee 197 Electrical conductivity and phase transition studies on K_2SO_4 crystals

J. M. G. Tijero and A. Ibarra 203 Use of luminescence of Mn^{2+} and Cr^{3+} in probing the disordering process in $MgAl_2O_4$ spinels

B. Bonello and B. Fernandez 209 Elastic constants of CdSe at low temperature

S. Takai, T. Atake and K. Gesi 213 Low temperature phase transition in K_2ZnCl_4 at 146 K

F. E. Prieto and C. Renero 217 Reduced variables in high pressure physics

O. L. Anderson and D. G. Isaak 221 The dependence of the Anderson–Grüneisen parameter δ_T upon compression at extreme conditions

O. Yamamuro, N. Kuratomi, T. Matsuo and H. Suga 229 Dielectric study of KOH-doped acetone and trimethylene oxide clathrate hydrates

K. C. Mishra, K. H. Johnson and P. C. Schmidt 237 A comparative study of the electronic structures of titanium dioxide and strontium titanate

L. Paslovsky and J. E. Lowther 243 CNDO parameterized cluster model calculations of transition metals in diamond

K. Zeppenfeld, R. Pöttgen, M. Reehuis, W. Jeitschko and R. K. Behrens 257 Preparation of $Yb_2Cr_2C_3$ and magnetic properties of the carbides $R_2Cr_2C_3$ (R = Y, Gd–Lu) with $Ho_2Cr_2C_3$-type structure

M. Hanaya, N. Ohta and M. Oguni 263 Calorimetric study of phase transitions in pyridinium iodide and pyridinium hexafluorophosphate crystals

H. Fujimori and M. Oguni 271 Construction of an adiabatic calorimeter at low temperatures and glass transition of crystalline 2-bromothiophene

R. Nada, J. Stuart, G. D. Price, C. R. A. Catlow and R. Dovesi 281 Comparative study of all-electron and core pseudo-potentials basis sets for periodic *ab initio* Hartree–Fock calculation: the case of $MgSiO_3$-ilmenite

Number 3

H. Murakami and M. Sano 289 Electron-momentum distribution in 2,3-dichloro-9,10-anthraquinone molecular crystals studied by positron annihilation

C. de Mello Donegá, A. Ellens, A. Meijerink and G. Blasse 293 Concentration enhancement of the vibronic transitions of the Pr^{3+} ion

M. Bucher 301 Hyperfine interaction of impurity silver atoms in alkali halide crystals

Y. T. Tan and K. J. Lushington 309 Local atomic environment in silver chlorobromides from EXAFS

K. Tanaka, Y. Oomori, H. Inoue, K. Kawano, R. Nakata and M. Sumita 315 ESR studies on Mn^{2+} centres in $Sr_{1-x}Ba_xF_2$:Mn crystals

S. Watanabe, H. Takahashi and S. Fujita 325 On the ⟨110⟩ cylindrical Fermi surface and the anisotropic cyclotron resonance peak in lead

Y. Matsumoto, K. Tanaka, K. Kawano, R. Nakata and M. Sumita 331 Fourier analysis of ionic thermocurrents observed at high temperature in BaF_2:Sm crystals

P. A. Joy and S. Vasudevan 343 Infrared (700–100 cm^{-1}) vibrational spectra of the layered transition metal thiophosphates MPS_3 (M = Mn, Fe and Ni)

C. Lartigue-Bourdeau, N. B. Chanh, R. Duplessix and B. Gallois 349 Thermal study and crystal structure of a perovskite-type unsaturated molecular composite: propargylamine and cadmium chloride complex salt

K. Endo, K. Yamamoto and K. Deguchi 357 Structure analysis of metal(I) halide mixed crystal by ^{63}Cu MASNMR and X-ray diffraction methods. III. $CuCl_xBr_{1-x}$ crystal

R. Jayaprakash and J. Shanker 365 Correlation between electronegativity and high temperature superconductivity

S. S. Bedi, M. Singh and J. Singh 371 Temperature dependence and long wavelength behaviour of magnesium stannide

A. K. Abass, R. A. Collins and A. Krier 375 The influence of oxygen on the electrical properties of monoclinic lead phthalocyanine

A. K. Arora, T. Sakuntala and L. Artús 381 Raman spectroscopic study of high pressure phase transitions in $AgGaSe_2$

K. Wakamura 387 Thermal expansion and anharmonic phonon–phonon interaction effects on an effective charge in GaAs and KCl

S. Bhaumik and C. K. Sarkar 397 Small signal a.c. response of hot electrons in n-$Hg_{0.8}Cd_{0.2}Te$ in the extreme quantum limit at low temperatures

Number 4

E. Iguchi and H. Miyagi 403 A study on the stability of polarons in monoclinic WO_3

S. E. Hill and C. R. A. Catlow 411 A Hartree–Fock periodic study of bulk ceria

M. Sorai, Y. Yumoto, D. M. Halepoto and L. F. Larkworthy — 421 Calorimetric study on the spin–crossover phenomenon between $^3T_1$ and ^5E in *trans*-bis[1,2-bis(diethylphosphino) ethane]diiodochromium(II), $[CrI_2(depe)_2]$

A. Halperin and E. W. Sucov — 431 Dose dependence of the thermoluminescence (TL) peak at 200 K in Al–Na containing quartz crystals

A. W. Al-Kassab, B. D. James and J. Liesegang — 439 Differential scanning calorimetric and electrical conductivity measurement on superionic $Rb_4H_2(SeO_4)_3$

K. Nakahigashi, H. Ishibashi and S. Minamigawa — 445 Electron density distribution in AlN from powder X-ray diffraction data by the maximum-entropy method

Cangsheng Hong, Junren Fang and Minyu Yi — 453 Mechanism of phosphorous poisoning inhibiting Nb_3Sn formation at Nb/Cu–Sn interfaces

D. Cárdenas-Garcia, E. R. López-Téllez and C. Ruiz-Mejía — 457 Calculation of the Z_1-center absorption bands

R. B. McLellan and C. Ko — 465 The diffusion of boron in f.c.c. iron

M. Reehuis, P. J. Brown, W. Jeitschko, M. H. Möller and T. Vomhof — 469 A neutron diffraction study of the magnetic order in $ThCr_2Si_2$ type phosphides $PrCo_2P_2$ and $NdCo_2P_2$

C. Aguillon-Levillain, S. Senoussi and H. Gu — 477 Influence of defects on relaxation in high-T_c superconductors

S. A. Sadeek and S. M. Teleb — 489 Infrared spectra of new dioxouranium (VI) solid complexes with tridentate Schiff bases $[UO_2(sal\text{-}OAP)(L)]$ (L=H_2O, Py, DMF and Et_3N)

A. A. Bokov, L. A. Shpak and I. P. Rayevsky — 495 Diffuse phase transition in $Pb(Fe_{0.5}Nb_{0.5})O_3$-based solid solutions

N. Merrien, F. Studer, C. Michel, P. Srivastava, B. R. Sekhar, N. L. Saini, K. B. Garg and G. Tourillon — 499 XAS and XPS study of electronic structure of the trivalent cuprate $La_2Li_{0.5}Cu_{0.5}O_{4-\delta}$

S. Åsbrink, A. Waśkowska and A. Ratuszna — 507 A high-pressure X-ray diffraction study of a phase transition in $KMnF_3$

Number 5

P. C. McGowan, J. J. Fontanella, M. C. Wintersgill, J. F. Lomax and L. M. Hayden — 513 Electrical relaxation of dimers in rare earth-doped calcium fluoride

R. Tetot, B. Nacer and G. Boureau — 517 A Monte Carlo investigation of the role of Coulomb interactions on thermodynamic properties and defect structure of $M_{1-\delta}O$ cubic oxides

B. Jagadeesh, P. K. Rajan, K. Venu and V. S. S. Sastry — 527 Proton NMR investigation of molecular dynamics in $[N(CH_3)_4]_3\ Sb_2Br_9$ (TEMABA)

K. Nagai, H. Kurata, S. Isoda and T. Kobayashi — 533 Structural transitions in the graphite–$AlCl_3$–$FeCl_3$ system

A. M. Woods, R. S. Sinkovits, J. C. Charpie, W. L. Huang, R. H. Bartram and A. R. Rossi — 543 Computer modeling of the optical properties of substitutional chromium impurities in halide elpasolites

T. L. Choy and **Y. Y. Yeung**	553	Decoupling transformation calculations of dynamical and vacancy-induced properties in FCC nickel metal
Kee Hag Lee and **U-Hyon Paek**	565	Electron–phonon coupling on the ionic 60-atom carbon cluster buckminsterfullerene
T. Caillat, L. Gailliard, H. Scherrer and **S. Scherrer**	575	Transport properties analysis of single crystals $(Bi_xSb_{1-x})_2Te_3$ grown by the traveling heater method
R. B. McLellan and **M. L. Wasz**	583	Carbon diffusivity in b.c.c. iron
A. A. Lucas, P. H. Lambin and **R. E. Smalley**	587	On the energetics of tubular fullerenes
M. Koberna and **J. Fiala**	595	Intermetallic phases influencing the behaviour of Al–Cu joints
R. R. Reddy, M. R. Kumar and **T. V. R. Rao**	603	Relationships between lattice energy, interionic distance and plasma energy in II–VI group semiconductors
H. Fujimori and **M. Oguni**	607	Thermodynamic study of 2-chlorothiophene: observation of two subsequent glass transitions in the stable crystalline state
Han-Ill Yoo and **B. J. Wuensch**	613	Time-dependent thermomigration: analytic solutions and experiment design
B. P. Dwivedi, M. H. Rahman, Y. Kumar and **B. N. Khanna**	621	Raman scattering study of lithium borate glasses
Xiang Xia and **Jing-kai Xiao**	629	Thermal expansivity of periclase at high temperature and high pressure
		Technical Note
R. R. Reddy, S. Anjaneyulu and **C. L. N. Sarma**	635	Relationship between energy gap, refractive index, bond energy and the Szigeti charge in polyatomic binary compounds and semiconductors

Number 6

		Review Article
S. P. Srivastava, J. Handoo, K. M. Agrawal and **G. C. Joshi**	639	Phase-transition studies in *n*-alkanes and petroleum-related waxes—a review
R. Kudesia, R. L. Snyder, R. A. Condrate, Sr. and **A. E. McHale**	671	Structural study of $Zr_{0.8}Sn_{0.2}TiO_4$
R. Gao, T. D. Hewitt and **D. Roy**	685	Stark shift of an interband transition in Cu determined by surface charge measurements
J. N. Johnson	691	Elastic moduli as determined by shock-release experiments
P. Pissis and **D. Daoukaki-Diamanti**	701	Dielectric studies of molecular mobility in hydrated zeolites
R. J. Thorn	711	The role of hydrostatic pressure in the conductivity vs temperature of κ-(BEDT-TTF)$_2$CuN(CN)$_2$Br
X. Wu, J. P. Denis, G. Özen, Ph. Goldner and **F. Pellé**	717	The u.v., blue and green up-conversion luminescence of $PbF_2 + GeO_2$:Er_2O_3 pumped with 650 nm
D. Kaczorowski, R. Pöttgen, Z. Gajek, A. Zygmunt and **W. Jeitschko**	723	Crystal structure and magnetic susceptibility of UOSe single crystals
C. Rudowicz, M. Du and **Y.-Y. Yeung**	733	Crystal field levels and fine structure of the ground orbital state for high spin Fe^{2+} and Fe^{4+} ions in $YBa_2(Cu_{1-x}Fe_x)_3O_{7-\delta}$
N. H. March, B. V. Paranjape and **R. E. Robson**	745	Nernst, Ettingshausen and Righi–Leduc phenomena in relation to the quantum Hall effect in two-dimensional electron assemblies

N. Ikram and A. Shaukat 747 Resistivity change due to short-range order and size-effect correction in Ni–Al alloys

B. Poumellec, R. Cortes, C. Sanchez, J. Berthon and C. Fretigny 751 Polarized XANES and EXAFS at the V K-edge of $VOPO_4 \cdot 2H_2O$ gel, comparison with the V K-edge in V_2O_5 xerogel

A. S. Shalabi 765 Multibody and Fourier expansion analysis of Li_2F_2 ions at crystal and cluster geometries

A. K. Pandit, R. S. Singh, T. H. Ansari, R. A. Singh and B. M. Wanklyn 769 Electrical conduction in $TmVO_4$ single crystal

M. Kumar and S. P. Upadhyay 773 Pressure dependence of thermal expansivity for alkali halides

Comment

Xia Shang-Da and M. F. Reid 777 Theoretical intensities of $4f$–$4f$ transitions between Stark levels of the Eu^{3+} ion in crystals

Number 7

I. G. Batirev, J. A. Leiro, L. A. Nikiforova and A. A. Katsnelson 779 Electronic structure and short-range order of amorphous and crystalline alloys in the coherent locator approximation

D. R. Noakes, E. J. Ansaldo, S. R. Kreitzman and G. M. Luke 785 The $(F\mu F)^-$ ion in solid fluorides

R. C. Baetzold, R. Grimes and C. R. A. Catlow 793 Computational study of hole species in models of the cuprate superconductors

R. Dronskowski, J. Köhler and J. R. Long 801 SmF_6^{4-} conformation caused by $5d$–$2p$ orbital interactions

E. Moya, C. Zaldo, B. Briat, V. Topa and F. J. López 809 Optical, magneto-optical and EPR study of chromium impurities in $Bi_4Ge_3O_{12}$ single crystals

Wu Zhijian and Zhang Siyuan 817 Analysis of angular overlap parameters for the $LaOX:Eu^{3+}$ (X = Cl, Br, I) series

Yanjia Lu, E. A. Secco and M. G. Usha 821 Positive mixed cation effect on fast Ag^+ ion conductivity in Ag_2SO_4 and phase diagram for Ag_2SO_4–Rb_2SO_4 system

A. Jayaraman, S. K. Sharma, Z. Wang, S. Y. Wang, L. C. Ming and M. H. Manghnani 827 Pressure-induced amorphization of $Tb_2(MoO_4)_3$: a high pressure Raman and X-ray diffraction study

K. M. Ananth and P. T. Manoharan 835 Single crystal EPR study of VO^{2+} in $LiCsSO_4$

G. Perrin and M. Delannoy-Coutris 845 Generalized Anderson–Grüneisen parameters for non-cubic solids

G. Wang, J. Roos, D. Brinkmann, M. Pasquali and G. Pistoia 851 Comparison of Li^+ transport in $Na_{1+x}V_3O_8$ and $Li_{1+x}V_3O_8$ by ^7Li NMR investigations

D. Nesheva, Z. Aneva and M. Gospodinov 857 Traps and recombination centers in pure and Co-doped $Bi_{12}SiO_{20}$ crystals

R. B. McLellan and M. L. Wasz 863 The thermodynamics of liquid Fe-based ternary solutions containing nitrogen

Technical Notes

N. Bonanos 867 Transport study of the solid electrolyte $BaCe_{0.9}Gd_{0.1}O_{2.95}$ at high temperatures

M. Bucher 871 Hyperfine interaction of impurity hydrogen atoms in alkaline-earth fluorides

Number 8

C. de Mello Donegá, H. Lambaerts, A. Meijerink and **G. Blasse** 873 The vibronic spectroscopy of Pr^{3+} in YOCl and LaOCl

M. Díaz, N. Suárez, E. Laredo and **A. Bello** 883 On the conversion of nn to nnn dipoles in $CaF_2:Gd^{3+}$

K. Endo, N. Kobayashi, M. Aida and **C. Inoue** 887 Spectra analysis of XPS valence energy levels of polymers by the semi-empirical MO method—I. Polyvinylalcohol, polyethyleneoxide and polyvinylchloride

S. Nagata, T. Abe, S. Ebisu, Y. Ishihara and **K. Tsutsumi** 895 Superconductivity in the metallic layered compound $NbTe_2$

A. Meijerink, M. M. E. van Heek and **G. Blasse** 901 Luminescence of Ag^+ in crystalline and glassy SrB_4O_7

L. B. Lin, S. D. Mo and **D. L. Lin** 907 Electronic structure of rutile (TiO_2)

Li-Shing Hsu, Lu-Wei Zhou and **R. S. Williams** 913 Electrical resistivity, magnetic susceptibility and thermoelectric power of $PtGa_2$

S. A. Sadeek 919 Preparation, infrared spectrum and thermal studies of $[Zn_2(H_2O)_4(SO_4)_2]$ complex formed by the reaction of urea with zinc(II) sulphate

K. D. Becker, V. von Wurmb and **F. J. Litterst** 923 Disorder and diffusional motion of cations in magnetite, $Fe_{3-\delta}O_4$, studied by Mössbauer spectroscopy at high temperatures

S. R. Cain and **D. D. Coolbaugh** 937 How aluminum bonds to a copper 100 surface

Meijun Zhang, S. Arajs, H. F. Helbig and **Weilong Cai** 947 The electrical resistance of gadolinium films

J. Llopis and **S. E. Paje** 951 Characterization of zirconia-toughened alumina (ZTA) ceramics by SEM-cathodoluminescence

M. T. Borowiec, B. Kozankiewicz, T. Łukasiewicz and **J. Żmija** 955 Photochromic absorption in molybdenum-doped sillenites $Bi_{12}GeO_{20}$

S. F. Chernov, Y. V. Fedorov and **V. N. Zakharov** 963 Surface tension of silver in different media

M. Mitric, P. Onnerud, D. Rodic, R. Tellgren, A. Szytula and **M. Lj. Napijalo** 967 The preferential site occupation and magnetic properties of $Gd_xY_{2-x}O_3$

Technical Note

A. K. Giri 973 Theoretical prediction of the pressure derivatives of the elastic constants and bulk modulus of the AgCl–AgBr mixed system

Number 9

K. J. Lee, A. Iguchi and **E. Iguchi** 975 Polaronic conduction of electrons in α-Mn_3O_4 slightly doped with Li

P. Kociński and **L. Adamowicz** 983 Magnetocrystalline anisotropy of iron within limitation of standard band approach

R. Subramanian and **R. Dieckmann**	991	Nonstoichiometry and thermodynamics of the solid solution $(Fe, Mn)_{1-\Delta}O$ at 1200°C
G. Blasse, W. J. Schipper, M. E. Huntelaar and **D. J. W. Ijdo**	1001	Luminescence of $SrZrSi_2O_7$
E. J. Baran, M. B. Vassallo, C. Cascales and **P. Porcher**	1005	Vibrational spectra of double molybdates and tungstates of the type $Na_5Ln(XO_4)_4$
M. Aoucher, T. Mohammed-Brahim, B. Fortin and **Y. Colin**	1009	Electrical conductance variation of a-Si:H films during a temperature programmed desorption
Jiang-Tsu Yu, Ching-Jiun Wu and **Ssu-Hao Lou**	1015	EPR of the SeO_4^{3-}, SeO_3^-, SeO_2^- and NH_3^+ radicals in ultraviolet-irradiated crystals of ammonium compounds
T. Miyazaki, K. Ichimura, S. Matsuzaki and **M. Sano**	1023	Pyridine-intercalated $MnPS_3$ single crystals
L. T. Chadderton	1027	Axisymmetric vibrational modes of fullerene C_{60}
A. Scacco, S. Fioravanti, M. Missori, U. M. Grassano, A. Luci, M. Palummo, E. Giovenale and **N. Zema**	1035	Optical absorption of Tl^+ ions in $KMgF_3$ crystals
Z. Burshtein, Y. Shimony, S. Morgan, D. O. Henderson, R. Mu and **E. Silberman**	1043	Symmetry lowering due to site-occupation disorder in vibrational spectra of gehlenite $Ca_2(AlSi)AlO_7$
A. V. Kurdyumov, V. L. Solozhenko, W. B. Zelyavsky and **I. A. Petrusha**	1051	The structural aspect of wurtzite boron nitride phase stabilization
I. G. Ratishvili, P. Vajda and **A. Boukraa**	1055	Order–disorder transition in the system CeH_{2+x}
A. L. Ivanovsky and **R. F. Sabiryanov**	1061	Interatomic interactions and electronic properties of NaCl-type $Ti_xAl_{1-x}N_y$
R. Jakubas, G. Bator and **J. Baran**	1065	Vibrational study of the structural phase transitions for the $(CH_3NH_3)_3Sb_2Br_9$ (MABA) and $(CH_3NH_3)_3Bi_2Br_9$ (MABB) crystals by infrared spectroscopy

Number 10

SPECIAL ISSUE

SPECTROSCOPIES IN NOVEL SUPERCONDUCTORS

F. M. Mueller, A. Bansil and **A. J. Arko**	ix	Preface
	xi	List of Participants
	xiii	Scientific Program of the Conference
D. M. Parkin	xviii	Welcome
Theory		
P. W. Anderson	1073	Two new developments in the theory of high T_c superconductivity
C. M. Varma	1081	Towards a theory of the marginal Fermi-liquid state
S. Maekawa, Y. Ohta and **K. Tsutsui**	1085	Ingap state in doped and undoped cuprates
P. Monthoux	1093	A nearly antiferromagnetic Fermi liquid approach to high T_c

J. E. Hirsch	1101	Color change and other unusual spectroscopic features predicted by the model of hole superconductivity
N. Bulut and **D. J. Scalapino**	1109	The effective electron–electron interaction in the 2D Hubbard model
W. E. Pickett	1115	Clues to the fundamental properties of high temperature superconductors
P. S. Riseborough and **P. Hanggi**	1123	The electronic structure of La_2CuO_4
B. H. Brandow	1137	Highly anisotropic but nodeless gap from a valence-fluctuation pairing mechanism
M. Gulácsi and **P. Fazekas**	1141	Phase diagram of the one-dimensional t–J–V model
D. Coffey and **K. S. Bedell**	1145	Similarity of the leading contributions to the self-energy and the thermodynamics in two- and three-dimensional Fermi liquids
M. Gulácsi and **K. S. Bedell**	1149	Single-particle Green function of the 1D Hubbard model
R. S. Markiewicz	1153	Van Hove Jahn–Teller effect and high-T_c superconductivity
N. Hamada	1157	Electronic band structure of $LaNiO_3$
G. Yu, C. H. Lee, D. Mihailovic, C. Fincher, N. Herron, E. M. McCarron and **A. J. Heeger**	1161	Electronic structure of insulating $YBa_2Cu_3O_{6+x}$: from Mott–Hubbard insulator to Fermi glass via oxygen doping
Theoretical Summary		
M. R. Norman	1165	After seven years, where's the consensus?
Photoemission		
Z.-X. Shen, D. S. Dessau, B. O. Wells and **D. M. King**	1169	Recent results from $Bi_2Sr_2CaCu_2O_8$ and $Nd_{2-x}Ce_xCuO_4$
C. Gu, B. W. Veal, R. Liu, H. Ding, A. P. Paulikas, J. C. Campuzano, P. Kostic, R. W. Wheeler, H. Zhang, C. G. Olson, X. Wu and **D. W. Lynch**	1177	Photoemission studies of Zn, Co, and Gd substituted $YBa_2Cu_3O_{7-\delta}$
A. Bansil, M. Lindroos, K. Gofron and **J. C. Campuzano**	1185	Angle resolved photoemission from $YBa_2Cu_3O_7$: signature of CuO_2 plane bands
K. Gofron, J. C. Campuzano, H. Ding, C. Gu, R. Liu, B. Dabrowski, B. W. Veal, W. Cramer and **G. Jennings**	1193	Occurrence of van Hove singularities in $YBa_2Cu_4O_8$ and $YBa_2Cu_3O_{6.9}$
R. Itti, K. Isawa, J. Sugiyama, K. Ikeda, H. Yamauchi, N. Koshizuka and **S. Tanaka**	1199	Analysis of Ols core-level of p- and n-type high-T_c copper oxides: evidence for a different nature of carrier doping
J.-H. Guo, N. Wassdahl, P. Skytt, S. Butorin, Y. Ma and **J. Nordgren**	1203	Electronic structure of $La_{2-x}Sr_xCuO_4$ studied by resonant soft X-ray fluorescence spectroscopy
N. Terada, S. Ishibashi, M. Jo, M. Hirabayashi and **H. Ihara**	1207	*In-situ* X-ray photoemission spectroscopy of $[SrCuO_2]_n$/$[CaCuO_2]_m$ layered structure
Yu. M. Yarmoshenko, V. A. Trofimova, L. V. Elokhina, E. Z. Kurmaev, S. Butorin, R. Cloots, M. Ausloos, J. Albino Aguiar and **N. I. Lobatchevskaya**	1211	Possibility of sulphur–oxygen substitution in $YBa_2Cu_3O_{6+x}S_y$ analyzed by means of X-ray emission spectroscopy

H. Koinuma, S. Gonda, J. P. Gong, M. Kawasaki, M. Yoshimoto, M. Nantoh, T. Hasegawa and **K. Kitazawa**	1215	Surface and interface characterization of high T_c related epitaxial films by STM/STS and XPS
S. M. Butorin, E. Z. Kurmaev, N. A. Babushkina, S. I. Kucheiko and **V. M. Pischagin**	1219	The non-metal–metal transition of $Bi_2Sr_2Ca_{1-x}Y_xCu_2O_{8+\delta}$ studied by soft X-ray emission spectroscopy
Positrons and dHvA		
A. A. Manuel, B. Barbiellini, M. Gauthier, L. Hoffmann, T. Jarlborg, S. Massidda, M. Peter, W. Sadowski, A. Shukla and **E. Walker**	1223	Positron annihilation in $YBa_2Cu_3O_{7-\delta}$: a clearer picture
P. A. Sterne, R. H. Howell, M. J. Fluss, J. H. Kaiser, K. Kitazawa and **H. Kojima**	1231	Positron annihilation study of Sr doping in $La_{2-x}Sr_xCuO_4$
L. C. Smedskjaer, R. Pankaluoto, A. Bansil and **P. E. Mijnarends**	1239	Fermiology of $YBa_2Cu_3O_{6.9}$: positron annihilation studies
S. Ishibashi, N. Terada, M. Hirabayashi, M. Tokumoto, N. Kinoshita and **H. Ihara**	1247	Positron distributions and lifetimes in novel superconductors
R. Goodrich, C. Grienier, D. Hall, A. Lacerda, E. G. Haanappel, D. Rickel, T. Northington, R. Schwarz, F. M. Mueller, D. D. Koelling, J. Vuillemin, L. Van Bockstal, M. L. Norton and **D. H. Lowndes**	1251	De Haas–van Alphen measurements in $Ba_{0.6}K_{0.4}BiO_3$
G. Kido, T. Takahashi and **H. Katayama-Yoshida**	1259	De Haas–van Alphen effect and collapse of Mott–Hubbard framework in high-T_c copper-oxides
E. G. Haanappel, W. Joss, P. Wyder, S. Askenazy, F. M. Mueller, K. Trübenbach, Hj. Mattausch, A. Simon and **M. Osofsky**	1261	The de Haas–van Alphen effect in $YBa_2Cu_3O_{7-\delta}$
J. H. Kim and **I. D. Vagner**	1269	Strong Coulomb correlation and lattice effects on de Haas–van Alphen oscillation
J. C. Ryan and **A. K. Rajagopal**	1281	Manifestations of the Landau quantization in type II superconductors in high magnetic fields
T. Maniv, I. D. Vagner and **P. Wyder**	1283	The transition to superconductivity in two-dimensional systems under strong magnetic fields
Optical and Microwave Properties		
M. Cardona	1287	Recent results in Raman spectroscopy of high-T_c superconductors
D. A. Bonn, D. C. Morgan, K. Zhang, R. Liang, D. J. Baar and **W. N. Hardy**	1297	Microwave surface impedance as a probe of unconventional superconductivity in $YBa_2Cu_3O_{6.95}$
S. L. Cooper, P. Nyhus, D. Reznik, M. V. Klein, W. C. Lee, D. M. Ginsberg, B. W. Veal and **A. P. Paulikas**	1307	Inter-bilayer charge dynamics in $YBa_2Cu_3O_{6+x}$
D. Mihailovic and **I. Poberaj**	1315	Non-equilibrium electrons, holes and phonons in $YBa_2Cu_3O_{7-x}$

D. Miller, P. L. Richards, E. J. Nicol, E. S. Hellman, E. H. Hartford Jr., C. E. Platt, R. A. Schweinfurth, D. J. VanHarlingen and **J. Amano**	1323	Direct submillimeter absorptivity measurements on epitaxial $Ba_{1-x}K_xBiO_3$ films at 2K
E. J. Nicol, C. Jiang and **J. P. Carbotte**	1327	D-wave superconductivity and Raman shifts
M. C. Krantz	1331	Effect of oxygen stoichiometry on electronic Raman scattering in $YBa_2Cu_3O_x$ $(7.0 > x > 6.8)$
J.-T. Kim, M. J. Sumner, E. R. Ulm and **T. R. Lemberger**	1335	Infrared reflectance of $YBa_2(Cu_{1-x}Ni_x)_3O_{7-\delta}$ films
Y. Murayama and **S. Nakajima**	1339	Optical properties in d–p-model high-T_c cuprates
A. Bock, J. C. Fretwurst and **U. Merkt**	1343	Raman spectra and laser heating of $YBa_2Cu_3O_7$ microbridges
R. Liu, M. V. Klein, D. Salamon, S. L. Cooper, W. C. Lee, S.-W. Cheong and **D. M. Ginsberg**	1347	Raman studies of charge-transfer insulating cuprates
Tunneling		
T. Hasegawa, M. Nantoh, S. Heike, A. Takagi, M. Ogino, M. Kawasaki, H. Koinuma and **K. Kitazawa**	1351	Scanning tunneling spectroscopy on high T_c superconductors
J. Hartge, L. Forro, D. Mandrus, M. C. Martin, C. Kendziora and **L. Mihaly**	1359	Tunneling and infrared spectroscopy on high T_c superconductors
D. Coffey	1369	Effect of spontaneous decay of superconductor quasiparticles in the tunneling density of states
S. Lenck and **J. P. Carbotte**	1377	Superconducting properties from phenomenological susceptibility
L. Chen and **A.-M. S. Tremblay**	1381	Symmetry and nodes of the superconducting gap
NMR		
Y. Kitaoka, K. Ishida, G.-q. Zheng, S. Ohsugi and **K. Asayama**	1385	NMR and NQR studies of spin correlation and superconductivity in high-T_c oxides
A. P. Reyes, P. C. Hammel, E. T. Ahrens, J. D. Thompson, P. C. Canfield, Z. Fisk and **J. E. Schirber**	1393	Phase separation and superconductivity in $La_2CuO_{4+\delta}$: effects of oxygen diffusion
G. Kwei, J. E. Schirber, B. Morosin, E. L. Venturini, J. A. Voigt, J. A. Goldstone and **A. C. Lawson**	1403	Phase separation and superconductivity in superoxygenated $La_{2-x}Sr_xCuO_{4+\delta}$
S. I. Mukhin and **L. J. de Jongh**	1407	A real-space pair model for the NMR behaviour in high-T_c cuprates
Fullerenes		
M. Dressel, L. Degiorgi, O. Klein and **G. Grüner**	1411	The electrodynamics of organic superconductors
J. E. Schirber, D. L. Overmyer, W. R. Bayless, M. J. Rosseinsky, D. W. Murphy, Q. Zhu, O. Zhou, K. Kniaz and **J. E. Fischer**	1427	Fullerene superconductors: phase stability and anomalously low T_c's in some ternary compounds
d-Wave Superconductivity		
D. J. Scalapino	1433	$d_{x^2-y^2}$ pairing in the cuprates?

C. P. Slichter, J. A. Martindale, S. E. Barrett, K. E. O'Hara, S. M. De Soto, T. Imai, D. J. Durand, C. H. Pennington, T. A. Friedmann, W. C. Lee and **D. M. Ginsberg**	1439	NMR studies of the superconducting pairing state of $YBa_2Cu_3O_7$
D. Pines	1447	Nearly antiferromagnetic Fermi liquids are high temperature superconductors: are the superconducting cuprates nearly antiferromagnetic liquids?
P. W. Anderson	1457	Remarks at the panel discussion on "d-wave superconductivity"
P. Arberg, M. Mansor and **J. P. Carbotte**	1461	Effect of Born and unitary scattering on the penetration depth of a d-wave superconductor
M. E. Flatté, S. Quinlan and **D. J. Scalapino**	1465	Method for measuring the momentum-dependent gap magnitude and relative phase in $La_{1.85}Sr_{0.15}CuO_4$
Banquet Speech **Z. Fisk**	1469	The folklore of superconductivity

Number 11

C. Cascales, P. Porcher and **R. Sáez-Puche**	1471	Crystal field effects on the magnetic susceptibility of rare earth tellurium oxides
M. Bucher	1475	Diffusion of impurity ions in silver halides
M. Paić and **V. Paić**	1481	Phases, phase transitions and excitons of the superionic conductor CuI between 4.2 and 800 K detected by diffuse reflectance
M. Ricco, L. Cristofolini, G. Viola and **E. Dalcanale**	1487	QENS and NMR investigation of reorientational dynamics in $C_{61}H_2$
R. J. Tarento, P. Joyes and **J. Van de Walle**	1491	Magnetism of deformed C_{60} molecule
L. Wang, P. S. Davids, A. Saxena and **A. R. Bishop**	1493	Correlation effects and electronic properties of fullerenes and carbon nanotubes
C. C. Coleman, A. B. Epstein and **R. J. Ebert**	1497	Photoimaging in mercuric iodide polycrystalline films
J. P. Bachheimer	1501	Optical (u.v.–v.i.s.–i.r.) study of the darkening effect induced by ionizing radiation of swept synthetic quartz
Moon-Seog Jin, Wha-Tek Kim and **Chang-Sun Yoon**	1509	Optical properties of undoped and Co-doped $CuGa_{1-x}Al_xSe_2$ single crystals
N. Fanjat, M. Barj, B. Briat, O. Schaerpf and **G. Lucazeau**	1515	Study of inelastic magnetic excitations in $Na_3Cr_2(PO_4)_3$ by neutron scattering
K. Zeppenfeld and **W. Jeitschko**	1527	Magnetic behaviour of Ni_3P, Ni_2P, NiP_3 and the series $Ln_2Ni_{12}P_7$ (Ln = Pr, Nd, Sm, Gd–Lu)
G. Özen, Xu Wu, J. P. Denis, A. Kermaoui, F. Pellé and **B. Blanzat**	1533	Optical properties and upconverted emissions of Tm^{3+} in Yb^{3+} doped fluorophosphate glasses
K. Nakahigashi, K. Higashimine, H. Ishibashi and **S. Minamigawa**	1543	Electron density distribution in germanium from X-ray powder data by the maximum entropy method
P. Krüger	1549	On the relation between non-isothermal and isothermal Kolmogrov–Johnson–Mehl–Avrami crystallization kinetics

W. Bührer, E. Lafougère and **H. Lutz**	1557	Lattice dynamics of pyrite FeS_2 by coherent neutron scattering
Jun-Kun Kang, Jin-Ho Choy and **M. Rey-Lafon**	1567	Phase transition behavior in the perovskite-type layer compound $(n\text{-}C_{12}H_{25}NH_3)_2CuCl_4$
Yu. K. Voronko, A. V. Gorbachev, V. V. Osiko, A. A. Sobol, R. S. Feigelson and **R. K. Route**	1579	Study of the boron–oxygen units in crystalline and molten barium metaborate by high temperature Raman spectroscopy
Zheng Wen-Chen	1587	Theoretical investigations of the zero-field splitting and its stress and pressure dependence for Mn^{2+} in $Na_2ZnCl_4 \cdot 3H_2O$ crystal
O. Kruse	1593	Spin flip and troilite–MnP structure transition in FeS as studied by Mössbauer spectroscopy
H. Ş. Darendelioğlu and **H. Yüksel**	1599	Spin configuration of two-dimensional orthorhombic lattice
T. Ouazzani, A. Lichanot, C. Pisani and **C. Roetti**	1603	Relaxation and electronic structure of surfaces in lithium sulphide: a Hartree–Fock *ab initio* approach
D. Yu. Godovski, V. Ya. Sukharev, A. V. Volkov and **M. A. Moskvina**	1613	Absorption induced response of electrophysical characteristics of filled polymer-composite
K. Kaji, M. Sorai, A. J. Conti and **D. N. Hendrickson**	1621	Calorimetric study of spin–state transformation of ferric spin–crossover complexes in the solid state—1. Heat capacity of $[Fe(3\text{-}OEt\text{-}SalAPA)_2]ClO_4 \cdot C_6H_6$
	1633	Corrigendum

Number 12

SPECIAL ISSUE

PHYSICS AND CHEMISTRY OF FULLERENE-BASED SOLIDS—II

	v	Preface
I. Synthesis and Characterization		
L. D. Lamb and **D. R. Huffman**	1635	Fullerene production
K. Tanigaki, I. Hirosawa, T. W. Ebbesen, J.-I. Mizuki and **J.-S. Tsai**	1645	Structure and superconductivity of C_{60} fullerides
H. H. Wang, J. A. Schlueter, A. C. Cooper, J. L. Smart, M. E. Whitten, U. Geiser, K. D. Carlson, J. M. Williams, U. Welp, J. D. Dudek and **M. A. Caleca**	1655	Fullerene derivatives and fullerene superconductors
M. Tokumoto, Y. Tanaka, N. Kinoshita, T. Kinoshita, S. Ishibashi and **H. Ihara**	1667	Characterization of superconducting alkali and alkaline-earth fullerides prepared by thermal decomposition of azides
II. Stability, Structure and Dynamics		
H. Kawamura, Y. Akahama, M. Kobayashi, H. Shinohara, H. Sato, Y. Saito, T. Kikegawa, O. Shimomura and **K. Aoki**	1675	Solid C_{70} at high pressure and high temperature
D. Tománek, Y. Wang and **R. S. Ruoff**	1679	Stability of fullerene-based systems

Y. B. Zhao, D. M. Poirier and **J. H. Weaver**	1685	K_xC_{60} structural evolution: scanning tunneling microscopy and low energy electron diffraction
K. Mizoguchi	1693	Magnetic resonance of fullerene solids and their compounds
D. A. Neumann, J. R. D. Copley, D. Reznik, W. A. Kamitakahara, J. J. Rush, R. L. Paul and **R. M. Lindstrom**	1699	Inelastic neutron scattering studies of rotational excitations and the orientational potential in C_{60} and A_3C_{60} compounds
R. Tycko	1713	Electronic properties and phase transitions of alkali fullerides: investigations by nuclear magnetic resonance spectroscopy
J. E. Fischer and **P. A. Heiney**	1725	Order and disorder in fullerene and fulleride solids
III. Electronic Properties		
S. Saito and **A. Oshiyama**	1759	Electronic structure of alkali and alkaline-earth doped solid C_{60}
S. G. Louie and **E. L. Shirley**	1767	Electron excitation energies in fullerites: many-electron and molecular orientational effects
Y. Takada	1779	Consideration of the mechanism of superconductivity in fullerenes: beyond Migdal's theorem and the dynamic Coulomb effect
W. Andreoni	1789	*Ab initio* molecular dynamics studies of fullerenes and fullerides: a brief discussion of results and open issues
Y. Iwasa, S. Watanabe, T. Kaneyasu, T. Yasuda, T. Koda, M. Nagata and **N. Mizutani**	1795	Change of electronic structures with varying molecular valence in A_xC_{60}
M. G. Mitch and **J. S. Lannin**	1801	Raman scattering and electron–phonon coupling in A_3C_{60}
H. Katayama-Yoshida and **T. Takahashi**	1817	Similarity and dissimilarity of doped fullerenes and oxide superconductors from the viewpoint of electronic structure
IV. Nanotubes and Capsules		
P. W. Fowler	1825	Cylindrical fullerenes: the smallest nanotubes?
J. W. Mintmire, D. H. Robertson and **C. T. White**	1835	Properties of fullerene nanotubules
M. Endo, K. Takeuchi, S. Igarashi, K. Kobori, M. Shiraishi and **H. W. Kroto**	1841	The production and structure of pyrolytic carbon nanotubes (PCNTs)
Y. Saito, T. Yoshikawa, M. Okuda, N. Fujimoto, K. Sumiyama, K. Suzuki, A. Kasuya and **Y. Nishina**	1849	Carbon nanocapsules encaging metals and carbides
Y. Murakami, T. Shibata, K. Okuyama, T. Arai, H. Suematsu and **Y. Yoshida**	1861	Structural, magnetic and superconducting properties of graphite nanotubes and their encapsulation compounds
M. Ge and **K. Sattler**	1871	Scanning tunneling microscopy of vapor-phase grown nanotubes of carbon

AUTHOR INDEX

Abass, A. K. 375
Abe, T. 895
Adamowicz, L. 983
Agrawal, K. M. 639
Aguiar, J. A. 1211
Aguillon-Levillain, C. 477
Ahrens, E. T. 1393
Aida, M. 887
Akahama, Y. 1675
Akhmadullin, I. 117
Al-Kassab, A. W. 439
Amano, J. 1323
Ananth, K. M. 835
Anderson, O. L. 221
Anderson, P. W. 1073, 1457
Andreoni, W. 1789
Aneva, Z. 857
Anjaneyulu, S. 635
Ansaldo, E. J. 785
Ansari, T. H. 769
Anselmi-Tamburini, U. 107
Aoki, K. 1675
Aoucher, M. 1009
Arai, T. 1861
Arajs, S. 947
Arberg, P. 1461
Arora, A. K. 381
Artús, L. 381
Asayama, K. 1385
Åsbrink, S. 507
Askenazy, S. 1261
Atake, T. 213
Ausloos, M. 1211
Aya, Y. 131

Baar, D. J. 1297
Babushkina, N. A. 1219
Bachheimer, J. P. 1501
Baetzold, R. C. 793
Bansil, A. 1185, 1239
Baran, E. J. 1005
Baran, J. 1065
Barbiellini, B. 1223
Barj, M. 1515
Barrett, S. E. 1439
Barrio, M. 171
Bartram, R. H. 89, 543
Batirev, I. G. 779
Bator, G. 1065
Bayless, W. R. 1427
Becker, K. D. 923
Bedell, K. S. 1145, 1149
Bedi, S. S. 371
Behrens, R. K. 257
Bello, A. 883
Berthon, J. 751
Bhaumik, S. 397
Bishop, A. R. 1493
Blanzat, B. 1533
Blasse, G. 293, 873, 901, 1001
Bock, A. 1343
Bokov, A. A. 495
Bonanos, N. 867
Bonello, B. 209
Bonn, D. A. 1297
Borowiec, M. T. 955
Boukraa, A. 1055
Boureau, G. 517
Brandow, B. H. 1137
Briat, B. 809, 1515
Brinkmann, D. 851
Brown, P. J. 469
Bucher, M. 35, 301, 871, 1475
Bührer, W. 1557
Bulut, N. 1109
Burshtein, Z. 1043
Butorin, S. 1203, 1211
Butorin, S. M. 1219
Byoung-Koo Choi, 197

Caillat, T. 575
Cain, S. R. 937
Caleca, M. A. 1655
Campbell, A. J. 5
Campuzano, J. C. 1177, 1185, 1193
Canfield, P. C. 1393
Cangsheng Hong, 453
Carbotte, J. P. 1327, 1377, 1461
Cárdenas-Garcia, D. 457
Cardona, M. 1287
Carlson, K. D. 1655
Cascales, C. 1005, 1471
Catlow, C. R. A. 281, 411, 793
Chadderton, L. T. 1027
Chaddha, G. S. 79
Chang-Sun Yoon, 1509
Chanh, N. B. 171, 349
Charpie, J. C. 543

Chen, L. 1381
Cheong, S.-W. 1347
Chernov, S. F. 963
Ching-Jiun Wu, 57, 1015
Choy, T. L. 553
Cloots, R. 1211
Coffey, D. 1145, 1369
Cohen, M. L. 51
Coleman, C. C. 1497
Colin, Y. 1009
Collins, R. A. 375
Condrate, R. A. Sr, 671
Conti, A. J. 1621
Coolbaugh, D. D. 937
Cooper, A. C. 1655
Cooper, S. L. 1307, 1347
Copley, J. R. D. 1699
Corkill, J. L. 51
Cortes, R. 751
Cramer, W. 1193
Cristofolini, L. 1487

Dabrowski, B. 1193
Dalcanale, E. 1487
Daoukaki-Diamanti, D. 701
Darendelioğlu, H. Ş. 1599
Davids, P. S. 1493
De Soto, S. M. 1439
Degiorgi, L. 1411
Deguchi, K. 15, 357
Delannoy-Coutris, M. 845
Denis, J. P. 717, 1533
Dessau, D. S. 1169
Díaz, M. 883
Dieckmann, R. 31, 991
Ding, H. 1177, 1193
Dolan, J. F. 89
Dominiak-Dzik, G. 153
Dordor, P. 25
Doumerc, J. P. 25
Dovesi, R. 281
Dressel, M. 1411
Dronskowski, R. 801
Du, M. 733
Dudek, J. D. 1655
Duplessix, R. 349
Durand, D. J. 1439
Dwivedi, B. P. 621

Ebbesen, T. W. 1645
Ebert, R. J. 1497
Ebisu, S. 895
Ellens, A. 293
Elokhina, L. V. 1211
Endo, K. 15, 357, 887
Endo, M. 1841
Epstein, A. B. 1497

Fanjat, N. 187, 1515
Fazekas, P. 1141
Fedorov, Y. V. 963
Feigelson, R. S. 1579
Fernandez, B. 209
Ferre, J. 1
Fiala, J. 595
Fincher, C. 1161
Fioravanti, S. 1035
Fischer, J. E. 1427, 1725
Fisk, Z. 1393, 1469
Flatté, M. E. 1465
Flor, G. 107
Fluss, M. J. 1231
Font, J. 171
Fontanella, J. J. 513
Forro, L. 1359
Fortin, B. 1009
Fowler, P. W. 1825
Fretigny, C. 751
Fretwurst, J. C. 1343
Friebel, C. 9
Friedmann, T. A. 1439
Fujimori, H. 271, 607
Fujimoto, N. 1849
Fujita, S. 325

Gailliard, L. 575
Gajek, Z. 723
Gallois, B. 349
Ganshina, E. A. 101
Gao, R. 685
Garg, K. B. 499
Gauthier, M. 1223
Ge, M. 1871
Geiser, U. 1655
Gesi, K. 213
Ghigna, P. 107
Ginsberg, D. M. 1307, 1347, 1439
Giovenale, E. 1035
Giri, A. K. 973
Godovski, D. Yu. 1613
Gofron, K. 1185, 1193
Gołąb, S. 153
Goldner, Ph. 717
Goldstone, J. A. 1403
Golenischev-Kutuzov, V. 117
Gonda, S. 1215
Gong, J. P. 1215
Goodrich, R. 1251
Gorbachev, A. V. 1579
Gospodinov, M. 857

Grassano, U. M. 1035
Grienier, C. 1251
Grimes, R. 793
Grüner, G. 1411
Gu, C. 1177, 1193
Gu, H. 477
Gulácsi, M. 1141, 1149
Guo, J.-H. 1203

Haanappel, E. G. 1251, 1261
Hagenmuller, P. 25
Haget, Y. 171
Halepoto, D. M. 421
Hall, D. 1251
Halperin, A. 43, 431
Hamada, N. 1157
Hamilton, D. S. 89
Hammel, P. C. 1393
Hanaya, M. 263
Handoo, J. 639
Hanggi, P. 1123
Hardy, W. N. 1297
Hartford, Jr. E. H. 1323
Hartge, J. 1359
Hasegawa, T. 1215, 1351
Hayden, L. M. 513
Heeger, A. J. 1161
Heek, M. M. E. van, 901
Heike, S. 1351
Heiney, P. A. 1725
Heinz, D. L. 5
Helbig, H. F. 947
Hellman, E. S. 1323
Henderson, D. O. 1043
Hendrickson, D. N. 1621
Herron, N. 1161
Hervieu, M. 65, 145
Hewitt, T. D. 685
Higashimine, K. 1543
Hill, S. E. 411
Hirabayashi, M. 1207, 1247
Hirosawa, I. 1645
Hirsch, J. E. 1101
Hoffmann, L. 1223
Howell, R. H. 1231
Huang, W. L. 543
Huffman, D. R. 1635
Huntelaar, M. E. 1001
Huvé, M. 145
Hyo-Kyoung Lee, 197

Ibarra, A. 203
Ichimura, K. 1023
Igarashi, S. 1841
Iguchi, A. 975
Iguchi, E. 403, 975
Ihara, H. 1207, 1247, 1667
Ijdo, D. J. W. 1001
Ikeda, K. 1199
Ikram, N. 747
Imai, T. 1439
Inoue, C. 887
Inoue, H. 315
Isaak, D. G. 221
Isawa, K. 1199
Ishibashi, H. 445, 1543
Ishibashi, S. 1207, 1247, 1667
Ishida, K. 1385
Ishihara, Y. 895
Isoda, S. 533
Itakura, M. 131
Itti, R. 1199
Ivanovsky, A. L. 1061
Iwasa, Y. 1795

Jagadeesh, B. 527
Jakubas, R. 1065
James, B. D. 439
Jarlborg, T. 1223
Jayaprakash, R. 365
Jayaraman, A. 827
Jeitschko, W. 135, 257, 469, 723, 1527
Jennings, G. 1193
Jiang, C. 1327
Jiang-Tsu Yu, 57, 1015
Jin-Ho Choy, 1567
Jin-Seung Jung, 1
Jing-kai Xiao, 629
Jo, M. 1207
Johnson, J. N. 691
Johnson, K. H. 237
Jongh, L. J. de, 1407
Joshi, G. C. 639
Joshi, N. V. 127
Joss, W. 1261
Joy, P. A. 343
Joyes, P. 1491
Jun-Kun Kang, 1567
Junren Fang, 453

Kaczorowski, D. 723
Kaiser, J. H. 1231
Kaji, K. 1621
Kamitakahara, W. A. 1699
Kaneyasu, T. 1795
Kappers, L. A. 89
Kasuya, A. 1849
Katayama-Yoshida, H. 1259, 1817
Katsnelson, A. A. 779
Kawamura, H. 1675

Kawano, K. 315, 331
Kawasaki, M. 1215, 1351
Kee, Hag Lee, 565
Kendziora, C. 1359
Kermaoui, A. 1533
Khanna, B. N. 621
Kido, G. 1259
Kikegawa, T. 1675
Kim, J. H. 1269
Kim, J.-T. 1335
King, D. M. 1169
Kinoshita, N. 1247, 1667
Kinoshita, T. 1667
Kitaoka, Y. 1385
Kitazawa, K. 1215, 1231, 1351
Klein, M. V. 1307, 1347
Klein, O. 1411
Kniaz, K. 1427
Ko, C. 465
Kobayashi, M. 1675
Kobayashi, N. 887
Kobayashi, T. 533
Koberna, M. 595
Kobori, K. 1841
Koda T. 1795
Koelling D. D. 1251
Koinuma, H. 1351
Kojima, H. 1231
Korzhik, M. 117
Koshizuka, N. 1199
Kostic, P. 1177
Kozankiewicz, B. 955
Krantz, M. C. 1331
Kreitzman, S. R. 785
Krier, A. 375
Krinchik, G. S. 101
Kroto, H. W. 1841
Krüger, P. 1549
Kruse, O. 1593
Kucheiko, S. I. 1219
Kudesia, R. 671
Kumar, M. R. 603
Kumar, M. 773
Kumar, S. 79
Kumar, Y. 621
Kurata, H. 533
Kuratomi, N. 229
Kurdyumov, A. V. 1051, 1219
Kuwano, N. 131
Kwei, G. 1403

Lacerda, A. 1251
Lafougère, E. 1557
Laiming Li, 73
Lamb, L. D. 1635
Lambaerts, H. 873
Lambin, P. H. 587
Lannin, J. S. 1801
Laredo, E. 883
Larkworthy, L. F. 421
Lartigue-Bourdeau, C. 349
Lawson, A. C. 1403
Lee, C. H. 1161
Lee, K. J. 975
Lee, W. C. 1307, 1347, 1439
Leiro, J. A. 779
Lemberger, T. R. 1335
Lenck, S. 1377
Li-Shing Hsu, 913
Liang, R. 1297
Lianwei Rei, 1
Lichanot, A. 1603
Liesegang, J. 439
Lin, D. L. 907
Lin, L. B. 907
Lindroos, M. 1185
Lindstrom, R. M. 1699
Litterst, F. J. 923
Liu, R. 1177, 1193, 1347
Llopis, J. 951
Lobatchevskaya, N. I. 1211
Lomax, J. F. 513
Long, J. R. 801
López, D. O. 171
López, F. J. 809
López-Téllez, E. R. 457
Louie, S. G. 1767
Lowndes, D. H. 1251
Lowther, J. E. 243
Lu-Wei Zhou, 913
Lucas, A. A. 587
Lucazeau, G. 187, 1515
Luci, A. 1035
Luengo, J. 127
Łukasiewicz, T. 955
Luke, G. M. 785
Lushington, K. J. 309
Lutz, H. 1557
Lynch, D. W. 1177

Ma, Y. 1203
Maekawa, S. 1085
Maignan, A. 65, 145
Mandrus, D. 1359
Manghnani, M. H. 827
Maniv, T. 1283
Manoharan, P. T. 835
Mansor, M. 1461
Manuel, A. A. 1223
March, N. H. 745

Markiewicz, R. S. 1153
Martin, C. 145
Martin, M. C. 1359
Martindale, J. A. 1439
Massidda, S. 1223
Matsumoto, Y. 331
Matsuo, T. 229
Matsuzaki, S. 1023
Mattausch, Hj. 1261
McCarron, E. M. 1161
McGowan, P. C. 513
McHale, A. E. 671
McLellan, R. B. 465, 583, 863
Meijerink, A. 293, 873, 901
Meijun Zhang, 947
Mello Donegá, C. de, 293, 873
Merkt, U. 1343
Merrien, N. 499
Michel, C. 65, 145, 499
Migachev, S. 117
Mihailovic, D. 1161, 1315
Mihaly, L. 1359
Mijnarends, P. E. 1239
Miller, D. 1323
Minamigawa, S. 445, 1543
Ming, L. C. 827
Mintmire, J. W. 1835
Minyu, Yi, 453
Mishra, K. C. 237
Missori, M. 1035
Mitch, M. G. 1801
Mitric, M. 967
Miyagi, H. 403
Miyazaki, T. 1023
Mizoguchi, K. 1693
Mizuki, J.-I. 1645
Mizutani, N. 1795
Mo, S. D. 907
Mohammed-Brahim, T. 1009
Möller, M. H. 469
Monthoux, P. 1093
Moon-Seog Jin, 1509
Morgan, D. C. 1297
Morgan, S. 1043
Morin, F. 31
Morosin, B. 1403
Mörsen, E. 135
Mosel, B. D. 135
Moskvin, A. S. 101
Moskvina, M. A. 1613
Moya, E. 809
Mu, R. 1043
Mueller, F. M. 1251, 1261
Mukhin, S. I. 1407
Müller-Warmuth, W. 135
Muntasell, J. 171
Murakami, H. 289
Murakami, Y. 1861
Murayama, Y. 1339
Murphy, D. W. 1427

Nacer, B. 517
Nada, R. 281
Nagai, K. 533
Nagata, M. 1795
Nagata, S. 895
Nakahigashi, K. 445, 1543
Nakajima, S. 1339
Nakata, R. 315, 331
Nantoh, M. 1215, 1351
Napijalo, M. Lj. 967
Negrier, P. 171
Nesheva, D. 857
Neumann, D. A. 1699
Nicol, E. J. 1323, 1327
Nikiforova, L. A. 779
Nishanova, M. M. 101
Nishina, Y. 1849
Noakes, D. R. 785
Nordgren, J. 1203
Norman, M. R. 1165
Northington, T. 1251
Norton, M. L. 1251
Nour, E.-M. 85
Nyhus, P. 1307

O'Connor, C. J. 1
O'Hara, K. E. 1439
Ogino, M. 263, 271, 607, 1351
Ohsugi, S. 1385
Ohta, N. 263
Ohta, Y. 1085
Oki, K. 131
Okuda, M. 1849
Okuyama, K. 1861
Olson, C. G. 1177
Ong, C. K. 183
Onnerud, P. 967
Oomori, Y. 315
Oshiyama, A. 1759
Osiko, V. V. 1579
Osofsky, M. 1261
Ouazzani, T. 1603
Overmyer, D. L. 1427
Özen, G. 717, 1533

Paić, M. 1481
Paić, V. 1481
Paje, S. E. 951
Palummo, M. 1035

Pandit, A. K. 769
Pankaluoto, R. 1239
Paranjape, B. V. 745
Paslovsky, L. 243
Pasquali, M. 851
Paul, R. L. 1699
Paulikas, A. P. 1177, 1307
Pellé, F. 717, 1533
Pennington, C. H. 1439
Perrin, G. 845
Peter, M. 1223
Petrusha, I. A. 1051
Pham, A. Q. 65
Pickett, W. E. 1115
Pines, D. 1447
Pisani, C. 1603
Pischagin, V. M. 1219
Pislewski, N. 123
Pissis, P. 701
Pistoia, G. 851
Platt, C. E. 1323
Poberaj, I. 1315
Poirier, D. M. 1685
Porcher, P. 1005, 1471
Pöttgen, R. 257, 723
Pouchard, M. 25
Poumellec, B. 751
Price, G. D. 281
Prieto, F. E. 217

Quinlan, S. 1465

Raffius, H. 135
Rahman, M. H. 621
Rajagopal, A. K. 1281
Rajan, P. K. 527
Rao, T. V. R. 603
Ratishvili, I. G. 1055
Ratuszna, A. 507
Raveau, B. 65, 145
Rayevsky, I. P. 495
Reddy, R. R. 603, 635
Redfern, S. A. T. 161
Reehuis, M. 257, 469
Reid, M. F. 777
Renero, C. 217
Rey-Lafon, M. 1567
Reyes, A. P. 1393
Reznik, D. 1307, 1699
Ricco, M. 1487
Richards, P. L. 1323
Rickel, D. 1251
Rinzler, A. G. 89
Riseborough, P. S. 1123
Robertson, D. H. 1835
Robson, R. E. 745
Rodic, D. 967
Roetti, C. 1603
Roos, J. 851
Rosseinsky, M. J. 1427
Rossi, A. R. 543
Route, R. K. 1579
Roy, D. 685
Rudowicz, C. 733
Ruiz-Mejía, C. 457
Ruoff, R. S. 1679
Rush, J. J. 1699
Ryan, J. C. 1281
Ryba-Romanowski, W. 153

Sabiryanov, R. F. 1061
Sadeek, S. A. 85, 489, 919
Sadowski, W. 1223
Sáez-Puche, R. 1471
Saini, N. L. 499
Saito, S. 1759
Saito, Y. 1675, 1849
Sakuntala, T. 381
Salamon, D. 1347
Sanchez, C. 751
Sano, M. 289, 1023
Sarkar, C. K. 397
Sarma, C. L. N. 635
Sastry, V. S. S. 527
Sato, H. 1675
Sattler, K. 1871
Saxena, A. 1493
Scacco, A. 1035
Scalapino, D. J. 1109, 1433, 1465
Schaerpf, O. 1515
Scherrer, H. 575
Scherrer, S. 575
Schipper, W. J. 1001
Schirber, J. E. 1393, 1403, 1427
Schlueter, J. A. 1655
Schmidt, P. C. 237
Schofield, P. F. 161
Schwarz, R. 1251
Schweinfurth, R. A. 1323
Secco, E. A. 821
Sekhar, B. R. 499
Senoussi, S. 477
Shalabi, A. S. 765
Shanker, J. 365
Sharma, S. K. 827
Shaukat, A. 747
Shen, Z.-X. 1169
Shibata, T. 1861
Shimomura, O. 1675
Shimony, Y. 1043

Shin, Y. J. 25
Shinohara, H. 1675
Shiquan, Xi, 73
Shiraishi, M. 1841
Shirley, E. L. 1767
Shpak, L. A. 495
Shukla, A. 1223
Silberman, E. 1043
Simon, A. 1261
Singh, J. 371
Singh, M. 371
Singh, R. A. 769
Singh, R. S. 769
Sinkovits, R. S. 543
Skytt, P. 1203
Slichter, C. P. 1439
Smalley, R. E. 587
Smart, J. L. 1655
Smedskjaer, L. C. 1239
Snyder, R. L. 671
Sobol, A. A. 1579
Solozhenko, V. L. 1051
Sorai, M. 421, 1621
Spinolo, G. 107
Srivastava, P. 499
Srivastava, S. P. 639
Ssu-Hao Lou, 57, 1015
Sterne, P. A. 1231
Stoyanova, R. 9
Stuart, J. 281
Studer, F. 499
Suárez, N. 883
Subramanian, R. 991
Sucov, E. W. 43, 431
Suematsu, H. 1861
Suga, H. 229
Sugiyama, J. 1199
Sukharev, V. Ya. 1613
Sumita, M. 315, 331
Sumiyama, K. 1849
Sumner, M. J. 1335
Suzuki, K. 1849
Szytula, A. 967

Takada, Y. 1779
Takagi, A. 1351
Takahashi, H. 325
Takahashi, T. 1259, 1817
Takai, S. 213
Takeuchi, K. 1841
Tamarit, J. Ll. 171
Tan, Y. T. 309
Tanaka, K. 315, 331
Tanaka, S. 1199
Tanaka, Y. 1667
Tanigaki, K. 1645
Tarento, R. J. 1491
Teleb, S. M. 85, 489
Tellgren, R. 967
Terada, N. 1207
Terada, N. 1247
Terbüchte, L. 135
Tetot, R. 517
Thompson, J. D. 1393
Thorn, R. J. 711
Tijero, J. M. G. 203
Tokumoto, M. 1247, 1667
Tománek, D. 1679
Topa, V. 809
Tourillon, G. 499
Tremblay, A.-M. S. 1381
Tritt-Goc, J. 123
Trofimova, V. A. 1211
Trübenbach, K. 1261
Tsai, J.-S. 1645
Tsutsui, K. 1085
Tsutsumi, K. 895
Tycko, R. 1713

U-Hyon Paek, 565
Ulm, E. R. 1335
Umeo, K. 131
Upadhyay, S. P. 773
Usha, M. G. 821

Vagner, I. D. 1269, 1283
Vajda, P. 1055
Van Bockstal, L. 1251
Van de Walle, J. 1491
VanHarlingen, D. J. 1323
Varma, C. M. 1081
Vassallo, M. B. 1005
Vasudevan, S. 343
Veal, B. W. 1177, 1193, 1307
Venturini, E. L. 1403
Venu, K. 527
Viola, G. 1487
Voigt, J. A. 1403
Volkov, A. V. 1613
Vomhof, T. 135, 469
Voronko, Yu. K. 1579
Vuillemin, J. 1251

Wakamura, K. 387
Walker, E. 1223
Wang, G. 851
Wang, H. H. 1655
Wang, L. 1493
Wang, S. Y. 827
Wang, Y. 1679

Wang, Z. 827
Wanklyn, B. M. 769
Waśkowska, A. 507
Wassdahl, N. 1203
Wasz, M. L. 583
Wasz, M. L. 863
Watanabe, S. 325, 1795
Weaver, J. H. 1685
Wei Wang, 73
Weilong Cai, 947
Wells, B. O. 1169
Welp, U. 1655
Wha-Tek Kim, 1509
Wheeler, R. W. 1177
White, C. T. 1835
Whitten, M. E. 1655
Williams, J. M. 1655
Williams, R. S. 913
Wintersgill, M. C. 513
Woods, A. M. 543
Wu, X. 717, 1177, 1533
Wu Zhijian, 817
Wuensch, B. J. 613
Wurmb, V. von, 923
Wyder, P. 1261, 1283

Xia Shang-Da, 777
Xiang Xia, 629

Yamamoto, K. 15, 357
Yamamuro, O. 229
Yamauchi, H. 1199
Yanjia, Lu, 821
Yarmoshenko, Yu. M. 1211
Yasuda, T. 1795
Yeung, Y. Y. 553
Yeung, Y.-Y. 733
Yng-Huey Jeng, 57
Yoo, H.-I. 613
Yoshida, Y. 1861
Yoshikawa, T. 1849
Yoshimoto, M. 1215
Young-Hee Cho, 197
Yu, G. 1161
Yüksel, H. 1599
Yumoto, Y. 421

Zakharov, V. N. 963
Zaldo, C. 809
Zelyavsky, W. B. 1051
Zema, N. 1035
Zenkov, A. V. 101
Zeppenfeld, K. 257, 1527
Zhang, H. 1177
Zhang, K. 1297
Zhang Siyuan, 817
Zhao, Y. B. 1685
Zhecheva, E. 9
Zheng, G.-Q. 1385
Zheng Wen-Chen, 1587
Zhou, O. 1427
Zhu, Q. 1427
Żmija, J. 955
Zygmunt, A. 723

Printed in Great Britain by BPC Wheatons Ltd, Exeter